

ICE BREAKER

TASMANIA'S ANTARCTIC NEWS AND VIEWS

NXT Extreme

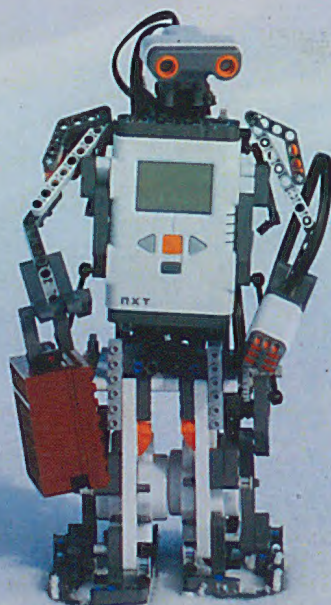
Alpha Rex on Ice

Northern Rings

First Arctic Marriage

Festival Highlights

Astronomy and more





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editorial

Funding for the development of more Antarctic and Southern Ocean facilities on the Hobart waterfront is such good news in the current economic downturn. Not such good news is the withdrawal of a major sponsor for the annual Huskies Picnic, a popular event that will be missed by many at this month's Antarctic Midwinter Festival. Perhaps the AMF needs a dedicated team of volunteers to work through the year to make sure favorite events do not lose sponsorship.

Included in this edition are two firsts - articles about a LEGO robot in Antarctica and a wedding at the North Pole - plus more details about AMF events.

Over the last month, I have been part of a team helping Scott Laughlin seek funding for the completion of the yacht Convergence, which is specially designed for Sub-Antarctic research voyages. It has been an exciting time preparing data for sponsors and we all look forward to Scott achieving his goals.

If you know of some special polar event, please contact Ice Breaker at any time.

Anthea Wallhead

Editor, Ice Breaker Magazine

regulars

■ Will Hodgman	7
■ Cassy O'Connor	8
■ Bill Lawson	9
■ Ben Galbraith	10
■ Tony Press	11
■ Rob Valentine	15

features

■ Seeing in the Dark	6
■ Apha Rex on Ice	12
■ First Arctic Marriage	14
■ Polar Publications	18
■ Polar Calendar	20

contents

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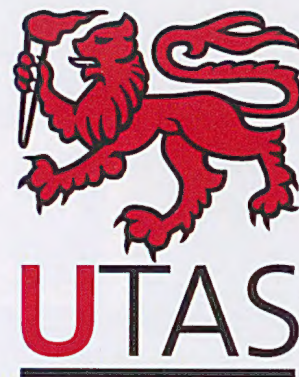
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During the Antarctic Midwinter Festival (June 19-28), the Tasmanian public will have a rare opportunity to visit a working radio telescope, explore one of Tasmania's least-known museums and marvel at Dr Peter Morse's computer visualisations of massive data sets in the Virtual Reality 3-D theatre. The Mt Pleasant Radio Observatory is open by appointment only, and special coaches will run from Hobart to Cambridge on both weekends of the Festival, June 20-21 and June 27-28. Entry is by ticket only. Coaches leave Hobart at 1:30pm and return at 4:00pm. Tickets can be purchased (\$12 adults, \$9 children) from Antarctic Tasmania, tel: 6233 5493. Seats are limited, so please book early. Details on the Festival website www.antarctic-tasmania.info

Seeing in the Dark

Visualising Antarctic Science

Paul Cullen

Scientists tell us that currents moving in the abyssal depths of the Southern Ocean may affect our weather thousands of kilometres away. Invisible solar storms trigger ghostly auroras visible in the Tasmanian night sky. How do we measure things we cannot see? What do the numbers mean?

Radio astronomy is one means of looking at things we cannot see with human eyes. Grote Reber (right), the father of radio astronomy, lived and worked here in Tasmania from the late 1950s until his death in 2002. Reber was an astronomer, inventor and engi-

neer who lived near Bothwell and built many extraordinary things, including a passive solar house and an electric car. He pioneered the carbon-14 dating of Aboriginal middens, pushing back the accepted dates of Aboriginal settlement by thousands of years.

These remarkable stories converge at Mount Pleasant in the Coal Valley, where the University of Tasmania's School of Mathematics and Physics operates a distinctive 26-metre 'big dish' radio telescope (above). The site also houses the Grote Reber Museum, which traces the life and work of this remarkable man.





Will Hodgman

...that will continue to underpin the polar link.

Tasmania has a long and proud history of links with the Antarctic, which continue to bring huge economic returns to the Tasmanian economy.

The Hobart Port, the second-deepest natural port in the world, is a valuable and rare resource. We must pro-actively explore and progress the Port's capabilities to encourage further international interest in Tasmania's wonderful potential as a leading Antarctic support and provision hub, and convince other Antarctic Treaty nations to also consider that opportunity.

The Hobart Port is already the home port of the Australian Antarctic research vessel, Aurora Australis, and L'Astrolabe, the French polar research vessel which supports the Dumont D'Urville French Base in Antarctica. The Tasmanian Polar Network has said that there are a number of other northern hemisphere nations which have expressed interest in using Hobart as their point of embarkation and disembarkation for Antarctica and the Southern Ocean.

A major upgrade of the capabilities of the Hobart Port would significantly

increase the likelihood of other Treaty nations choosing the Port as a base. Imagine the possibilities if the Russians decided to use Hobart as a staging point for their scientific activities!

Contributing around \$150 million each year to the Tasmanian economy, the Antarctic support industry, one of the largest industries in Tasmania, has come about largely through international and Australian Government support. In this regard, I welcome the recent budgetary commitment from the Federal Government that will continue to underpin the polar link.

Tasmania is now poised to become a major international gateway to Antarctica, luring scientists from all over the world to Hobart before they depart to the icy continent. It is therefore crucial that we are pro-active in marketing the State's status as an international gateway by promoting Tasmania's Antarctic gateway status and more aggressively seizing opportunities arising from the Antarctic airlink.

It is a great shame that the Tasmanian Government has shown inertia in pro-actively pursuing other opportuni-

ties, including, for example, longer-term possibilities such as the relocation of the USA Antarctic staging base from Christchurch to Hobart.

In closing, I must draw attention to the 9th Hobart Antarctic Midwinter Festival taking place from the 19th to the 28th of June at numerous locations around Hobart. With ten days of displays of Antarctic and Southern Ocean science, history, nature, wildlife, images and artifacts, tours, a photographic competition, various performances, community events and the return of the Antarctic Schools Program, this Festival provides a wonderful opportunity for the Tasmanian community to explore the unique connection between our State and Antarctica.

I look forward to attending this wonderful event and encourage others to do the same.

Will Hodgman

Leader of the Opposition

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Astronomy 2009 on Ice
Observing the Universe from the South Pole

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Stamp courtesy Klaus
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Cassy O'Connor

Well done to all the Hobart port users who made their point so clearly...

The federal budget has been delivered since the last issue of Ice Breaker and this year, finally, the Australian Antarctic Division has received a significant extra funding boost.

The Commonwealth has decided to allocate an extra \$25 million to the AAD this year, as well as another \$11 million to continue the Airlink program.

This extra funding is confirmation of the essential work being conducted by the AAD, and affirmation of Hobart's role as the global centre for Antarctic science.

And global attention is once again focussing on Antarctica, after the ice bridge that connects the Wilkins Ice Shelf to the Antarctic mainland began collapsing so dramatically in April.

As Greenpeace says, the ice bridge has been retreating since the late 1990s. In 1950, it was almost 100km wide but, just before collapsing, its thinnest point was just 500 metres wide. The bridge acted as a brace for the massive Wilkins Ice Shelf, which is about half the size of Scotland and

now threatens to break away completely from Antarctica. Scientists see this major event as evidence of rapid warming in the region.

My family watched the dreadful news about the Wilkins Shelf on television together one night in April, and it horrified my kids, absolutely terrified them. It is not possible to look your children in the eye and say that everything's going to be okay when you know that it isn't. All I could do was tell them about the brilliant people in the AAD, and at CSIRO, who are working so hard on all issues that affect Antarctica and the Southern Ocean, especially the Big One: climate change.

So congratulations to the AAD and all its staff for the long-awaited and well-deserved funding boost in this year's federal budget. And thank you from my family and I – we desperately want and need you to continue your invaluable work.

The Federal Budget allocation for a new a new state-of-the-art deep water research vessel to replace the RV Southern Surveyor is also very big

news for the AAD, not to mention the Port of Hobart (one of my other obsessions!).

Thankfully, the ridiculous waterfront hospital so beloved of the Lennon and Bartlett Governments has finally been given last rites, and the Port is now safe from this inappropriate development. Well done to all the Hobart port users who made their point so clearly and defended their port so staunchly. The Greens support a new Hobart hospital, but not at the expense of existing port users, and we will continue our push for a new hospital on a greenfields site that is not an integral part of our working port!

Cassy O'Connor

Tasmanian Greens Spokesperson on Antarctic Affairs

ice.edu

Adelie Penguin

Height: 70 cm

Flipper length: 20-24 cm

Weight: about 5 kg.

Lifespan: at least 15-20 years

Winter is spent at sea, where they feed on krill and other small fish, often far from land. Dives only last a few minutes, although thick blubber protects the penguins from the cold. Their chief predator is the leopard seal.



Stamp courtesy Klaus Arne Pedersen.



Bill Lawson

I have no doubt we will continue these events into the 09/10 season.

In my last message I reflected my hope that by the time I write this message, the proposal to build a new RHH at the Railyards site would be dead and buried. I'm pleased to say that this is now the case following the State Government's decision and announcement last week. I find no real pleasure in this 'victory' for our efforts as it has cost us all a lot of time and money to protect the port's future and preserve our maritime heritage. Looking back at the effort it has taken from many Tasmanians I must say I still find it amazing that it was so seriously mooted.

This year's Midwinter Festival will soon be upon us and its planning and preparation are once again in the very capable hands of Paul Cullen. As always, I encourage TPN members to participate as fully as they are able in what will undoubtedly again be a

wonderful week.

The next TPN meeting is to be held at CCAMLR's premises – thanks Denzil – and will be attended by His Excellency, the Governor of Tasmania. I anticipate that the Governor will address the meeting and that he will remain with us for a light lunch. I encourage members to make a special effort to attend.

I again report on a very successful Reception for the French Expeditioners, this time on their return from the South en route home to France. These gatherings are a joint venture between Alliance Française and the TPN and are a concentrate of good will between us all. They are undoubtedly well worth the effort and cost as we highlight and acknowledge the special regard the French hold for Hobart and Hobartians. I have no doubt we will continue these events into the 09/10 season.

Last month, I was part of a briefing team to meet with and brief Australia's new Ambassador to Chile, Virginia Greville. We together effectively widened the Ambassador Designate's understanding of Tasmania's unique position in global Antarctic, Sub-Antarctic and Southern Oceans affairs and hope her time in South America proves fruitful for both Australia and Chile.

Finally, I was delighted to hear recently from Anthea Wallhead of her gaining an order for a new Igloo from British Antarctic Survey – well done Anthea.

Bill Lawson

Chairman, TPN

Antarctic Birds in Winter

South Polar Skua

Length: 530 mm
Wingspan: up to 1.3m
Weight: 0.9-1.5 kg
Lifespan: about 20 years

Some birds have been sighted as far north as Greenland by mid-July, but most are flying over southern oceans, feeding on fish. Skuas will also steal food by harassing other birds until they drop their catch.



Wandering Albatross

Length: up to 1.4m
Wingspan: up to 3.4m
Weight: up to 12 kg
Lifespan: at least 40 years

Some birds winter 13,000 km away from their nest site and may fly 500 km in a day searching for fish and squid, which they pluck from the sea surface. Albatross soar using the upcurrents from the waves for lift.



Southern Giant Petrel

Length: 1m
Wingspan: up to 1.8m
Weight: up to 4.8 kg
Lifespan: 20 years

Birds feed at sea as far north as S America or S Africa. As petrels only breed every 2-3 years, juveniles may circle Antarctica on the westerly winds several times before returning to their birthplaces 5-8 years later.





Ben Galbraith

This is great news for the Antarctic marine sector...

Budget Announcements

Recent months have certainly been exciting times for the Tasmanian Antarctic sector. Following announcements in the Federal budget in May, the University of Tasmania (UTAS) will receive \$45 million to establish new infrastructure to house and support the Institute of Marine and Antarctic Studies (IMAS). This follows recent UTAS Council approval for the formal establishment of IMAS which draws together into a single body marine and polar scientists from a range of existing entities within the university including the Tasmanian Aquaculture and Fisheries Institute (TAFI), Centre for Marine Science, the Institute for Southern Ocean and Antarctic Studies (IASOS) and staff from a range of schools. The institute will stand outside the faculty structure, as does the Menzies Research Institute, and this will increase research capacity in temperate and Southern Ocean marine science and expand research relevant to the national research priority of a Sustainable Australia.

The establishment of IMAS is expected to significantly strengthen UTAS' national and international profile as a world class oceanographic centre specialising in Southern Ocean and temperate marine research. IMAS will be comparable to international oceanographic centres such as the National Oceanographic Centre at Southampton, UK; Woods Hole and Scripps Oceanographic Institutes in USA; French Research Institute for Exploitation of the Sea (IFREMER) in Brest, France; and the Alfred Wegner Institute in Bremerhaven, Germany.

IMAS is expected to launch towards the end of 2009. By 2012, the Vice Chancellor, Daryl Le Grew

has aspirations for the new institute to be accommodated in facilities on the Hobart Waterfront, ideally close to the CSIRO, thereby establishing a marine science precinct with the greatest concentration of marine scientists in the Southern Hemisphere. This is great news for the Antarctic marine sector, particularly when coupled with: \$12 million announced annual increase in operations funding for the Australian Antarctic Division; \$52 million program funding increase for the CSIRO's International Marine Observing System; \$120 million funding to provide a new CSIRO research vessel to replace the Southern Surveyor, together with an additional \$30 million to support ship charter time during construction of the new research vessel.

The Department of Foreign Affairs and Trade (DFAT) also received \$1.2 million allocation to host the next Antarctic Treaty Consultative Committee meeting in Australia scheduled for mid 2012.

COMNAP Secretariat

The Council of Managers of National Antarctic Programs (COMNAP) is an international organisation that brings together the Antarctic Programs of 29 countries in developing and promoting best practice for managing and supporting scientific research in Antarctica. COMNAP is supported by a secretariat, which generally rotates with each six-year term, on the appointment of a new Executive Secretary.

After 12 years of Tasmanian Government hosting the COMNAP Secretariat in the offices of Antarctic Tasmania, (formerly the Office of Antarctic Affairs) the secretariat will transfer to Christchurch, New Zealand in July this year. This follows the appointment of Michelle Rogan-Finnemore of New Zealand as

incoming Executive Secretary. We congratulate Michelle on her appointment and wish her well in continuing to build on the work of COMNAP members.

Outgoing Executive Secretary Dr Antoine Guichard, who held the position for 6 years, has made a significant contribution to COMNAP during this period. A selection of his achievements include: improving search and rescue coordination and response in Antarctic through collaboration with the Australian and Chilean Rescue Coordination Centres; modernising electronic information exchange through establishment of an electronic database that interfaces with Antarctic Treaty Secretariat in Argentina, including developing a live ship reporting system; and enhancing the engagement and participation of members on the work of COMNAP.

The Tasmanian Government is proud of its record of contribution to the work of COMNAP through hosting the secretariat in Hobart, and wishes Antoine all the best with his future endeavours.

Ben Galbraith

Director Antarctic Tasmania

See Page 17 for Ben's item about the Honorary Antarctic Ambassador

Winter Solstice

The path of the sun at Dumont d'Urville on 21st June.

Stamp courtesy Klaus Arne Pedersen.



Tony Press

Climate change featured strongly in plenary and discussion...

It's been a very busy time here at the Antarctic Climate and Ecosystems (ACE) CRC. Since the last edition of Ice Breaker we've received the very good news that ACE has made it through to the interview stage of the 11th CRC Funding Round. That means we are now preparing for our crucial interview, which will be held in Canberra on 1 July. In the meantime we are putting together a presentation, doing a mock interview and responding to any additional questions from the CRC program on our bid. As I said in my last Icewatch the CRC is looking at what Australia can do to fill the gaps in the world's knowledge of climate change and the impacts of global change to the health of the Southern Ocean.

I have just returned from a very stimulating and extremely interesting conference in Melbourne, Future Summit 2009, organised by the Australian Davos Connection (<http://www.futuresummit.org/>). The theme for the summit was "Priorities for Australia in the Crisis and Beyond" and it brought together leaders in business and industry, government, academia and civil society. Climate change featured strongly in plenary and discussion and I continue to be impressed by the amount of interest there is in the work of the ACE CRC in these kinds of gatherings.

Dr John Hunter, Tessa Jakszewicz and the sea level rise team have been

very busy rolling out the sea level rise seminars and workshops (co-funded by the Australian Government's Department of Climate Change) around Australia. The response has been almost overwhelming with many of the sessions being fully (and sometime over) subscribed. The feedback from participants has been overwhelmingly positive – there is a great demand for this kind of information from planners and policy makers. It is also a good way of profiling Tasmanian science and innovation on the 'big island'.

Speaking of Tasmanian science and innovation, the Climate Futures for Tasmania project is delivering preliminary findings to Tasmanian stakeholders. While I was at the Future Summit, I mentioned this work to a group of participants – their response was: "We should do that for all of Australia! How much would it cost?"

I was privileged to be part of the Australian delegation to the 50th Anniversary Antarctic Treaty meeting in Baltimore USA and participated in the historic joint meeting of the Antarctic Treaty's Committee for Environmental Protection and the Scientific Committee of CAMLR (3 – 17 April 2009). I was able to use my attendance at this meeting to meet with key players in Antarctic research and discuss potential collaborations for the future CRC. In particular, I was able to discuss the CRC rebid with Professor Karin Lochte from the Alfred Wegner Institute in

Germany; and potential logistical possibilities with Karl Erb from the US Antarctic program; Lou Sanson from Antarctica New Zealand and Anders Karlquist from the Swedish program.

The Sentinel Workshop held at the CCAMLR headquarters in Hobart from 20 – 24 April was a great success. The Workshop was sponsored by ACE, the Australian Antarctic Division (AAD) and World Wildlife Fund (WWF) and brought together physical and biological scientists and others to discuss ways of measuring and predicting the impacts of climate change on Southern Ocean ecosystems.

I would like to conclude by offering my congratulations to all who were associated with the additional funding, announced in the budget, for the AAD; the Institute for Marine and Antarctic Studies at the University of Tasmania; the Integrated Marine Observing System; and the National Facility (currently Southern Surveyor). Great work! These funds continue to build Hobart and Tasmania as a world centre of excellence for marine and Antarctic science and logistics.

Wish us luck in the interview!

Tony Press

CEO ACE CRC



Alpha Rex on Ice



Antarctica has never had a visitor quite like this before. Alpha Rex, a 30cm tall humanoid robot, recently visited the Antarctic mainland as part of a global road trip. Alpha Rex has spent the past year travelling around the world to celebrate the tenth anniversary of the LEGO Mindstorms robotics range.

He left his home in Denmark to travel around the world. He has witnessed a launch of the Space Shuttle Discovery in Houston, Texas, and visited landmarks such as the Colosseum and the Taj Mahal.

LEGO released the first version of the Mindstorms product range in 1998, and as I was a long-time fan of LEGO, I was very excited by the possibilities. I bought my first Mindstorms kit in 1999, the

Clockwise from above:

- Adelle penguins on the fast ice off Davis.
- Welcome to Davis Station.
- On the fast ice with Aurora Australis in the background.





year before I started teaching. Following on from some success with bringing robotics to the classroom, I had the opportunity to beta-test a new version of the robotics kit, LEGO Mindstorms NXT.

After the Alpha Rex road trip had begun, LEGO contacted me to see if I happened to know anyone who might be going to Antarctica in the near future. As luck would have it, a colleague was able to put me in touch with Tony Worby (Senior Research Scientist, Australian Antarctic Division). Tony kindly offered to take Alpha Rex with him on the Aurora Australis, and took these wonderful photos.

Rob Torok

Teacher and LEGO robotics enthusiast

- On a Hagglund over snow vehicle.
- In the bar at Davis with staff.
- On the fast ice at Davis with icebergs in the distance.





First Arctic Marriage

Eric Philips

This year Icetrek introduced a new concept in North Pole tourism - Celebrations and Ceremonies at the North Pole. To kick off I organised the first ever wedding ceremony at the North Pole. No, not the town of North Pole, Alaska, not the North Magnetic Pole, but the true North Pole, at the top of the world.

Alexis Fredrick from Arizona contacted me in 2008 about doing something different for her marriage to partner of three years, William Browning. Little did she know that a wedding ceremony at the North Pole would be a world first. In reality the wedding is not legally recognised as it is conducted on international waters and no country has jurisdiction over this region, however this didn't deter the couple and the ceremony would suffice with the official wedding held in Hawaii in late May.

Alexis 'Lex' and her partner William 'Billy' Browning flew to Longyearbyen, the quaint little town in the Norwegian Arctic archipelago of Svalbard, early in April. At this time, I was guiding a ski expedition to the North Pole and had made arrangements for the couple to be looked after and delivered to the high Arctic Ocean where I would meet them. On arrival they were given their tailor-made polar suits, white for her and pinstripe black for him, made specially for the occasion by Red Fox in Russia. Not only did they look fantastic in them but they also provided all the protection the couple required from the

intense cold they would experience at the Pole.

After checking into their hotel they enjoyed the various activities and shopping offered in and around the town. Longyearbyen is a hive of activity with programs such as snowmobiling, dog-sledding and polar bear watching on offer every day of the week.

On the morning of April 10 they were collected from their hotel and taken to the airport for the 2.5 hour Antonov-74 flight to Ice Station Barneo. Just short of the North Pole, Barneo is the Russian-operated drift station and airfield that services the short North Pole tourist industry. All North Pole airborne visitors pass through Barneo, some stay for a night or two, some continue through to their ski destinations, some head north to the Pole for a few hours and return on the Antonov to Longyearbyen later in the day. This was Lex and Billy's option.

Having completed my ski trip, I flew to Barneo where I met Lex and Billy for the first time. They were buzzing with excitement. After coffee and cake, and the mandatory briefing for everyone heading north, we boarded the Mi8 helicopter for the short ride to the North Pole. With more than twenty tourists on board, we had a ready-made wedding party.

On arrival at the North Pole, indicated by 90N on the helicopter's GPS, we began the ceremony without delay - at 35C below there is little idle time.

Fortunately the sky was clear with almost no wind. Firstly I took some photos of a range of banners that Lex had embroidered, including 'Mr and Mrs Browning', 'The North Pole, April 10, 2009' and 'The Top of the World'. Following this we completed a ceremonial dance around the Pole and the couple fired some flares for good luck. After some warming wine, the ceremony began, witnessed by all that had arrived on the helicopter. Russian explorer and celebrant, Victor Boyarsky, read the vows in both English and Russian, the couple sealing the marriage with the swap of rings and a kiss. Alexis and Billy were pronounced man and wife and a cheer went up from the happy crowd. The newlyweds were delighted - they had just begun their life together as a married couple and they had just completed the first ever North Pole wedding ceremony.

After two hours the cold began to seep in and we boarded the helicopter where we cracked the first of many champagne bottles and toasted the newlyweds. Back at Barneo the celebrations continued apace with more champagne and vodka. Lunch of soup and a hearty Russian stew went down a treat.

In the early evening the AN-74 returned to collect the couple and all others due to return to Norway. The flight was a nice chance to sleep off some of the excitement - Lex and Billy snoozed like babies on each other's shoulders. A few days in Longyearbyen

continued >>



Rob Valentine

...the most significant centre for Antarctic endeavours in the world.

As the winter solstice draws near, it brings into mind the benefit of Antarctic activity to this State and certainly to the city of Hobart, as a major international Antarctic Gateway.

I recently had the privilege, along with the Deputy Lord Mayor, Alderman Eva Ruzicka, of attending the 2nd International Forum on the Sub-Antarctic, which attracted significant interest from those working in and through that Region. The inaugural forum was held in Hobart in 2006.

Sir Guy Green (Honorary Antarctic Ambassador for Tasmania) and Dr Denzil Miller (Executive Secretary, Commission for the Conservation of Antarctic Marine Living Resources, CCAMLR), together with Mr Ben Galbraith (Director, Antarctic Tasmania) and the forum organising committee, are to be congratulated for bringing research scientists and managers together to provide a detailed account of scientific research and endeavour being undertaken in the Sub Antarctic Region. As indicated at the two-day forum, the

Region is a system in its own right and should be treated as such. The significance of marine and terrestrial environments across the system was very well demonstrated and I am sure the forum will prove to be the seed that grows into a more established interaction between the National and International Stakeholders of the Sub-Antarctic.

I believe the region will play a significant role into the future in demonstrating the impacts that carbon absorption into our oceans and also climate change are having on the globe as a whole. I'm sure the City of Hobart and Tasmania stand to benefit greatly as interest in this region continues to expand.

The University of Tasmania is without doubt one of the more significant academic institutions with a focus on the Antarctic Region and I have no doubt the Sub-Antarctic region will also prove to be of no lesser importance to such institutions. This focus can only serve to benefit our state and our city and

all parties should work together to increase the focus which, at the end of the day, will be of significant benefit to the globe as a whole.

In closing, the recent announcement in the Federal Budget regarding funding for the University of Tasmania's Institute of Marine and Antarctic Studies is very welcome indeed and only serves to strengthen Hobart's role as what I believe to be the most significant centre for Antarctic endeavours in the world. The Vice Chancellor, Professor Daryl Le Grew and his team, are to be congratulated for their hard work in successfully promoting the initiative to the Australian Government.

Once again, congratulations to all of those involved in bringing the forum to our shores and we look forward to further activity surrounding the Sub-Antarctic 'system'.

Alderman Rob Valentine

Lord Mayor, Hobart



gave them time to relax and soak everything in before a final dinner at one of Longyearbyen's great restaurants with many of the North Pole witnesses.

It's by no accident that the North Pole was chosen for such an event. Despite being indistinguishable from any other point on the frozen Arctic Ocean, it's an enigmatic location, a focal point at which we would all gather if we walked north on our line of longitude. As such it makes for a symbolic stage for acts of togetherness, cooperation and fun.

A film of the ceremony can be seen at <http://tr.youtube.com/user/icetrekker> or from www.icetrek.com

Tasmanian with Greenpeace

Eric Phillips will be working as a polar guide on the Greenpeace ship Arctic Sunrise from mid-June this year. Greenpeace is documenting the effects of climate-change on Greenland, in particular the imminent breakup of the Petermann Glacier in the northwest, one of the largest glaciers in the northern hemisphere. After steaming south then north again to the northeast tip, Arctic Sunrise completes its work in Spitsbergen in mid-September.

Science Week in Tasmania

In 2009, National Science Week will run from 15-23 August. Events include:

- **Brain Break** – A morning tea for science. Bring along science-themed food, take part in a science quiz or check out the hands-on science activities provided in your free Brain Break kit. Just register your Brain Break as an event on the National Science Week website and include a contact email.
- **Big Aussie Star Hunt** - Discover where you can find constellations such as the Southern Cross and Scorpio, read stories from Indigenous Australian astronomy, and participate in the national light pollution survey. As part of the project, you can measure how much light pollution is in your neighbourhood by counting stars. The more stars you see, the less light pollution there is. By entering your results into the Big Aussie Star Hunt website, you can help make a light pollution map of Australia
- **ScientificA** - Eight days of scientific fun at the Queen Victoria Museum and Art Gallery, Sunday Science FREE for ALL, and including MadLab Electronics, Stargazing on the Lawn, Scinema science films, University of Tasmania Engineering Hands-On, Minds-On activities for students and teacher professional

learning activities.

- **Bugs on the Move** - Explore the fascinating world of some of the smallest animals on the planet! Through engaging hands-on activities and live bugs on display, you'll learn about life cycles, feeding methods, defence mechanisms and what actually makes bugs so successful! Don't miss this and other activities at the Imaginarium Science Centre in Devonport.
- **Young Tassie Scientists 2009** - Taking science around the state so you can find out what scientists really do! During August, the Young Tassie Scientists will be on the road and will visit schools around Tasmania. They will also be running sessions at the UTAS Open Days in Burnie, Hobart and Launceston - and will be at the Imaginarium Science Centre in Devonport and at the the Queen Victoria Museum and Art Gallery in Launceston. Presentations are interactive with lots of opportunities to ask your questions.
- **Sharks, Devils and You: Up Close and Personal** - Showcases the research and filming work on Great White Sharks, and the management of injured and orphaned wildlife (including Tasmanian Devils and Wedge Tailed Eagles). The documentaries will show the challenges, fun and career opportunities available in science, and will be presented to the public at locations around Tasmania.

Find out more at www.scienceweek.gov.au

Planets' Poles

NASA's ENDURANCE project (Environmentally Non-Disturbing Underwater Robotic Antarctic Explorer) is a part of a comprehensive plan to search for life on Europa, Jupiter's giant moon. Funded by the agency's ASTEP (Astrobiology Science and Technology for

Exploring Planets) program, ENDURANCE will spend two field seasons exploring the ice-covered Lake Bonney in Antarctica's McMurdo Dry Valleys. The lake stretches for 1.5 kilometers and at its widest point is about half a kilometer wide.

Peter Doran, professor of earth and environmental sciences at the University of Illinois at Chicago and head of the project, said Antarctica's ice-covered lakes can be used as models of an ice-covered ocean on Europa, but on a much smaller scale. The ENDURANCE autonomous underwater vehicle (AUV), designed and built at Stone Aerospace in Del Valle, Texas, has enabled scientists to begin to construct a more comprehensive, three-dimensional understanding of the lake.

For further details, see <http://www.space.com/scienceastronomy/090521-am-endurance-lake-bonney.html>

Boost to Southern Studies

The Institute of Antarctic and Southern Ocean Studies (IASOS) has recently merged with the Tasmanian Aquaculture and Fisheries Institute (TAFI) to form a new Institute of Marine and Antarctic Studies (IMAS). Recent funding for IMAS from the Federal Government means a \$45 million facility will be built at the Princes Wharf No. 2 shed site near the current CSIRO on Castray Esplanade. Collaboration with the CSIRO, AAD, industry and State Government means this area will become a major marine precinct on Hobart's waterfront.

Refurbishment of the existing building and construction of the new one could mean three hundred staff and students beginning courses by 2011.

Other Tasmanian Polar Network members benefiting from new funding include the Australian Antarctic Division, which receives extra to maintain Antarctic stations, as well as some for science projects and the Antarctic airlink. In addition, \$1.4 million goes

towards hosting the Antarctic Treaty Consultative Meeting in 2012.

Thirty Sea Years

The Marine Discovery Centre at Woodbridge, Tasmania, recently celebrated 30 years of educating students. There are now 10 Discovery Centres in Australia that model themselves on this facility, which offers hands-on activities about marine animals, the seabed and foreshore. The MDC is the only centre with its own research vessel, the 13.5m Penghana. Labor Franklin MHA, Ross Butler attended the official celebration on April 26, 2009, and cut the special cake with the assistance of a young student. Over 800 people visited the MDC when it was later opened to the public,

Solo Row Abandoned

Oliver Hick's attempt to be the first person to row around the world was abandoned in New Zealand due to strong winds and currents which made the Flying Carrot's crossing the Tasman Sea much more difficult than expected.

Protest Ship Departs

The Sea Shepherd Conservation Society's ship Steve Irwin left Hobart in April bound for Queensland for repairs to its hull. Damage from collisions with Japanese whaling vessels in the Southern Ocean will cost around a quarter of the Society's budget to repair. The crew were grateful for Hobart's generous support of goods and funds during their stay. The Steve Irwin was successful in reducing Japan's quota of whales slaughtered last season.

Green Anniversary

Twenty years ago a group of scientists formed People for an Antarctic World Park. To draw attention to the need for protecting the continent, Greenpeace purchased an Igloo Satellite Cabin with 'World Park Antarctica' written in large letters on the side, and

set it up on an airstrip the French were intending to enlarge near a penguin rookery. The Igloo was damaged by the French but Greenpeace did not move their camp for that season and airstrip was eventually abandoned, after chunks of a glacier fell and blocked it. Since that time, mining has been banned for 50 years from 1991, but Antarctica is still not a World Heritage area and the Greens continue to argue for its nomination.



Greenpeace's Igloo under construction aboard MV Gondwana in Hobart.

Honorary Antarctic Ambassador

Sir Guy Green has been re-appointed for a second successive term as the Honorary Antarctic Ambassador for Tasmania. In this role, Sir Guy will help build Tasmania's international profile and capabilities as a centre for Antarctic and marine research, education, logistics and management.

On making the announcement, Min-

ister Michael Aird said "Sir Guy brings a wealth of knowledge to the position, and I know that Sir Guy will continue to promote Tasmania as one of the best centres for Antarctic and Sub-Antarctic related endeavours in the world."

As Governor of Tasmania, Sir Guy Green held four multidisciplinary Antarctic forums, which reviewed developments in the field and Tasmania's role in them. He has given a number of Antarctic related papers and addresses including the inaugural Law Lecture and was Chairman of the Inaugural International Forum on the Sub-Antarctic. Most recently he has chaired the Steering Committee for the 2nd International Sub-Antarctic Forum, which was successfully held in Hobart in April.

Cool gardener

Jamie Durie, better known for his Australian TV garden programs, recently returned from the Arctic where he was on assignment for the Sunday Night program on Channel Nine. Now an environmental journalist, Jamie saw first-hand the effects of global warming on the polar ice cap and the Inuits, who are also experiencing cultural changes.

Rare whale

The 27 metre-long carcass of a Blue Whale has washed ashore south of Cape Farewell in NZ. Blue whales are the largest creatures to have ever lived and fewer than 2000 remain.

Antarctic Studies

Utas is currently advertising mid-year enrolments for Master of Antarctic Science and Honours in IASOS courses, as well as students interested in MSc and PhD courses. For further details: enquiries@iasos.utas.edu.au or visit www.utas.edu.au/iasos



Polar Publications

BOOK WEBSITES

For children's books on Antarctica: www.coolantarctica.com

For updates on Antarctic books in progress: www.antarctic-circle.org/bookdue.htm

Antarctica Books for students: www.hazeledwards.com/books/antarctica.htm

BOOK: City Wolves

Dorris Heffron
Blue Butterfly Book Publishing Inc.

Price: \$36.95 CAN

Based on historical facts, this book covers a journey from Nova Scotia to the Yukon during the Gold Rush, describing the variety of characters that lived during that adventurous time.

MAGAZINE: Warm 2009 Edition

Also broadcast as Warm TV.

A useful reference for living sustainably which is 'good for the environment, good for your health and good for your hip pocket'. 2009 edition explores climate change effects and mentions CSIRO, UTAS, IASOS and ACE CRC, all TPN members. More at www.climatechange.tas.gov.au

BOOK: Dr Phillip Garth Law: His Extraordinary Life and Times

Ian Toohill
Published by The Royal Societies of Australia
Price: \$45.00

An oral history of Dr Law's life, from his early years as a teacher, to his Antarctic Service and later educational achievements. See enclosed flyer for further details.

STAMPS: WWF: Dolphins of the Australian Coastline

Australia Post

This stamp issue is part of the World Wildlife Fund for Nature Conservation Stamp Collection, featuring the Spotted Bottlenose, Hourglass, Southern Right Whale and Dusky Dolphins. Issued on 26 May, 2009.

FILM: The Great Chase

Filmmaker: Damien Lay
Producer: Carolyn Frichot

Filming is underway on this adventure thriller based on the longest sea chase, when Australian patrol boat Southern Supporter chased the Uruguayan-based Viarsa across the Southern Ocean in 2003.

BOOK: Small Ships That Shaped My Life

Bern Cuthbertson
Self Published
Price: about \$35.00

A fascinating account of over 40 years of the author's life in the fishing industry, organised about the vessels in which he crewed, helped construct, owned, captained or managed.

STAMPS: AAT: Poles and Glaciers

Australia Post

Issued on March 4, 2009, this set of stamps features a snow petrel and jade iceberg, with the ice crystal logo by Finnish designer, Saku Heinanen and ice flowers image by Frederique Olivier. National postmark is Kingston, Tasmania.

FILM: The Kingdom of the Blue Whale

National Geographic Channel

Educational Kit with virtual fieldwork excursion, educational support materials such as links to Australian scientific whale conservation research and teachers' notes. Download from www.natgovtv.com

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Polar Calendar

5	June	2009	TPN meeting. 11.00am-1.00pm. CCAMLR. Hobart, Tasmania
10-12	June	2009	KOPRI 16th International Symposium on polar Sciences: Polar Exploration with ARAON. Incheon, South Korea. Further details: shpark314@kopri.re.kr
15 3	June July	2009- 2009	International Polar Field School: An Interdisciplinary Experience in Polar Studies. University Centre, Svalbard, Norway
19-28	June	2009	Tasmania's Antarctic Midwinter Festival. Hobart, Tasmania. For details see www.antarctic-tasmania.info
19	June	2009	Melbourne Midwinter Dinner - ANARE Club members only
20	June	2009	Midwinter Dinner Tasmania - ANARE Club members and guests only
20	June	2009	Adelaide Midwinter Dinner
20	June	2009	Canberra Midwinter Dinner
26	June	2009	Brisbane Midwinter Dinner
26	June	2009	North Queensland Midwinter Dinner
27	June	2009	Sydney Midwinter Dinner
27	June	2009	TPN/Red Cross Midwinter Dinner 'Fire and Ice'. Details: www.antarctic-tasmania.info
4-7	July	2009	Conference of the Australian Science Teachers Association 58 (CONASTA). Launceston, Tasmania. Speakers include Bill Lawson (SKM) and Dr Kelvin Michael (ACE CRC). Details at www.cdesign.com.au/conasta58
11-16	July	2009	14th International Congress on Circumpolar Health. Yellowknife, NWT, Canada
14	July	2009	ANARE General Meeting
26-31	July	2009	Xth SCAR International Biology Symposium. Sapporo, Hokkaido, Japan
27-31	July	2009	Glaciology in the IPY. Newcastle, UK. Contact john.woodward@unn.ac.uk
15-23	August	2009	Science Week, Australia
24-29	August	2009	Workshop on the Response of Antarctic Biota to Climate Change. Madralin, near Warsaw, Poland
4	September	2009	TPN meeting and AGM. (to be confirmed)
7-11	September	2009	1st Antarctic Climate Evolution Symposium. Granada, Spain. Details: cescutia@ugr.es
26 6	October November	2009- 2009	CCAMLR meetings. Hobart, Tasmania
30 3	November December	2009- 2009	Antarctic Treaty Summit: Science-policy Interactions in International Governance. Smithsonian Museum, Washington DC, USA. Taking place during the 50th Anniversary of the initial signatures to the Treaty (1 December 1959). For details, contact Paul Berkman: berkman@bren.ucsb.edu
9-11	December	2009	Antarctic Treaty Meeting of Experts on Ship-bourne Tourism. Wellington, NZ. Details: atme@tcc.co.nz

Further details available at www.scar.org/events/



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Shipping & Air Calendar

20	October	2009	Aurora Australis	V1	Departs Hobart for Davis Station
22-23	October	2009	Aurora Australis	V1	Marine Science
25-29	October	2009	Aurora Australis	V1	Macquarie Island
4-5	October	2009	Aurora Australis	V1	Marine Science
5-8	October	2009	Aurora Australis	V1	Casey Station
14	November	2009	Aurora Australis	V1	Davis Station
3-5	December	2009	Aurora Australis	V1	Arrive Hobart, depart for Marine Science
7-16	December	2009	Aurora Australis	V2	Marine Science
17-24	December	2009	Aurora Australis	V2	Casey Station
27 6	December January	2009- 2010	Aurora Australis	V2	Marine Science

Tasports shipping at http://www.tasports.com.au/port_services/arrivalshobart.htm

Australian Antarctic Division's shipping and air schedules at <http://www.aad.gov.au/link.asp?shippingschedule>



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